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ABSTRACT

An alternative process whereby the calcium sulphide formed in an IGCC system from calcium oxide and/or calcium carbonate can be safely and more or less quantitatively converted by reaction with carbon dioxide to calcium carbonate and/or calcium oxide together with sulphur dioxide. The calcium oxide and/or calcium carbonate can be reused in the IGCC system, and the sulphur dioxide can be converted to a useful product, such as sulphuric acid. One result of this process is that since the furnace ashes do not contain a significant level of calcium sulphide, they can be safely disposed of in a land fill site.